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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,391	02/27/2004	Jan LUNDGREN	07589.0156.PCUS00	2390

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,391	Applicant(s) LUNDGREN, JAN	
	Examiner Marc Jimenez	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7-9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lundgren (WO 00/20749). Lundgren teaches a rotor component having at least one wall element **4** for transmitting load and that is joined together with at least one ring element **3**, the method comprising laser-welding **9** the edge of the wall element **4** firmly on the ring element **3**, from an opposite side of the ring element **3**, at a position radially aligned with the wall element **4**, and in such a way that the joined-together portions of the wall element and the ring element form a T-shaped joint.

Note the inner ring **2** and outer ring **3**. Note the gas flow means **5**. The walls **4** transmit load. Lundgren teaches the structure of the component as claimed and therefore is considered to meet the limitations pertaining to guiding gas flow, transmitting load and is configured for utilization in a gas turbine or jet engine.

Art Unit: 3726

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 3, 4 and 5** rejected under 35 U.S.C. 103(a) as being unpatentable over Lundgren.

Regarding claim 3, Lundgren teaches the invention cited above with the exception of having ring elements joined together to form a ring.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the one piece ring of Dimberg into multiple pieces in order to provide selectively repairable portions and since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claims 4 and 5, Lundgren teaches multiple rings 3,4 which is considered to meet the limitations pertaining to a plurality of ring elements forming the ring elements as claimed. Alternatively, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the one piece ring of Dimberg into multiple pieces in order to provide selectively repairable portions and since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Art Unit: 3726

4. **Claims 1, 2, 4, 5, 7-9, 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimberg (US1641745) in view of Havard et al. (US5483034).

Dimberg teaches a method for manufacturing a stator or rotor component having at least one wall element **2** for transmitting load and that is joined together with at least one ring element **3**, the method comprising welding the edge of the wall element **2** firmly on the ring element **3**, at a position radially aligned with the wall element **2** and in such a way that the joined-together portions of the wall element **2** and the ring element **3** form a T-shaped joint.

Dimberg teaches the invention cited above with the exception of laser-welding the wall to the ring element and from an opposite side of the ring element.

Havard et al. teach laser-welding (col. 2, line 58) a wall element **2** to an outer element **1** from an opposite side of the outer element (abstract, last two lines).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Dimberg with laser-welding the wall to the ring element from an opposite side of the ring element, in light of the teachings of Havard et al., in order to provide a faster and more efficient welding technique and in order to provide a more secure weld.

Regarding claim 2, the wall elements **2** of Dimberg are joined together with the ring element **3** at a mutual spacing in a peripheral direction.

Regarding claim 4, Dimberg also teaches an inner ring **4**.

Regarding claim 5, since Dimberg has an inner ring **4** and outer ring **3**. Dimberg teaches a plurality of ring elements.

Regarding claims 7-9, 11 and 12, Dimberg teaches the structure of the component as claimed and therefore is considered to meet the limitations pertaining to guiding gas flow, transmitting load and is configured for utilization in a gas turbine or jet engine.

5. **Claims 3-6 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimberg in view of Havard et al. as applied to claim 1 above, and further in view of Doran (US2347034).

Dimberg/Havard et al. teach the invention cited above with the exception of a plurality of ring elements being joined together to form a ring.

Doran teaches a plurality of ring elements **15,16** to form a ring.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Dimberg/Havard et al. with a plurality of ring elements being joined together to form a ring, in light of the teachings of Doran, in order to provide ring elements that can be selectively repaired in sections. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the one piece ring of Dimberg into multiple pieces, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claims 4 and 5, Havard et al. teach multiple rings which is considered to meet the limitations pertaining to a plurality of ring elements forming the ring elements as claimed. Alternatively, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the one piece ring of Havard et al. into multiple pieces in order to provide selectively repairable portions and since it has been held that constructing a formerly

Art Unit: 3726

integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Also, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Dimberg/Havard et al. with a plurality of ring elements being joined together to form a ring, in light of the teachings of Doran, in order to provide ring elements that can be selectively repaired in sections.

Regarding claims 6 and 10, Dimberg/Havard et al. teach the invention cited above with the exception of having a hollow blade.

Doran teaches a hollow blade (figure 5).

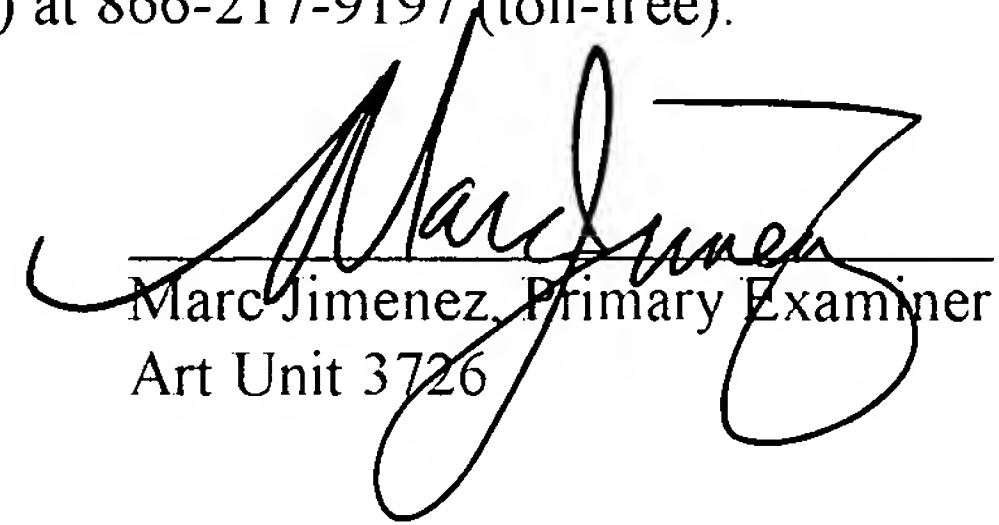
Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Dimberg/Havard et al. with a hollow blade, in light of the teachings of Doran, in order to provide blades having the desired air flow characteristics.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marc Jimenez, Primary Examiner
Art Unit 3726

MJ
3-30-06